

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
1 July 2004 (01.07.2004)

PCT

(10) International Publication Number  
**WO 2004/054613 A1**

(51) International Patent Classification<sup>7</sup>: **A61K 39/12**,  
39/125, A61P 35/00

(74) Agent: **BLAKE DAWSON WALDRON PATENT SER-  
VICES**; Level 35, Grosvenor Place, 225 George Street,  
SYDNEY, New South Wales 2000 (AU).

(21) International Application Number:  
PCT/AU2003/001688

(22) International Filing Date:  
18 December 2003 (18.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2002953436 18 December 2002 (18.12.2002) AU

(71) Applicant (for all designated States except US): **THE  
UNIVERSITY OF NEWCASTLE RESEARCH AS-  
SOCIATES LIMITED** [AU/AU]; Industry Development  
Centre, University Drive, **CALLAGHAN**, New South  
Wales 2308 (AU).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR,  
CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,  
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,  
MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,  
SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,  
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH,  
GM, KB, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,  
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,  
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventor; and

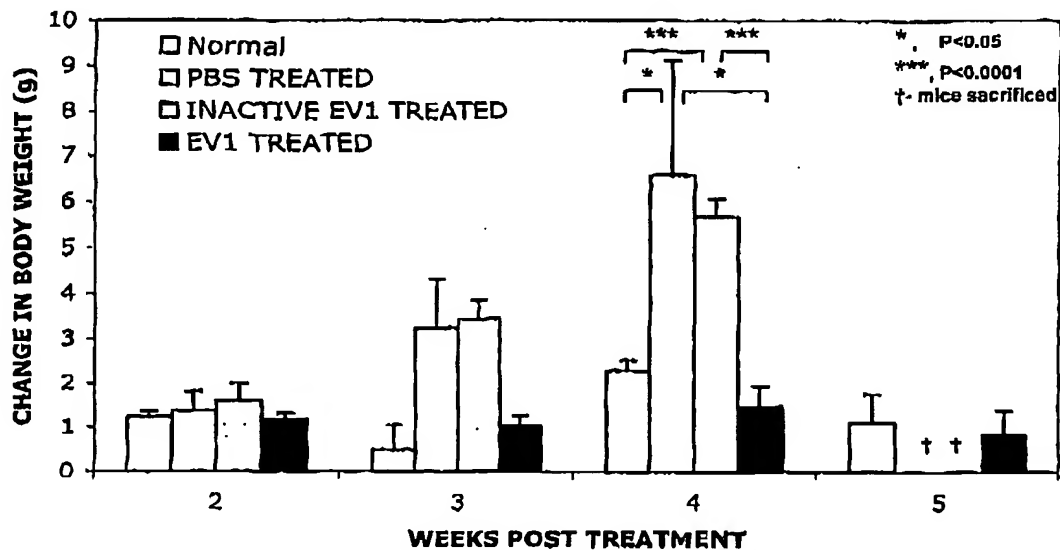
(75) Inventor/Applicant (for US only): **SHAFREN, Darren**  
[AU/AU]; 8 Bingle Street, **NEWCASTLE**, New South  
Wales 2300 (AU).

Published:

— with international search report

[Continued on next page]

(54) Title: A METHOD OF TREATING A MALIGNANCY IN A SUBJECT VIA DIRECT PICORNAVIRAL-MEDIATED ON-  
COLYSIS



(57) Abstract: There are provided methods for treatment of abnormal cells such as cancer cells in a mammal. The methods involve treating the mammal with virus selected from echoviruses and modified forms and combination thereof, which recognise  $\alpha_2\beta_1$  for infectivity of the cells. There are also provided methods for screening viruses for use in a method of the invention as well as pharmaceutical compositions for use in the methods.

**WO 2004/054613 A1**

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*